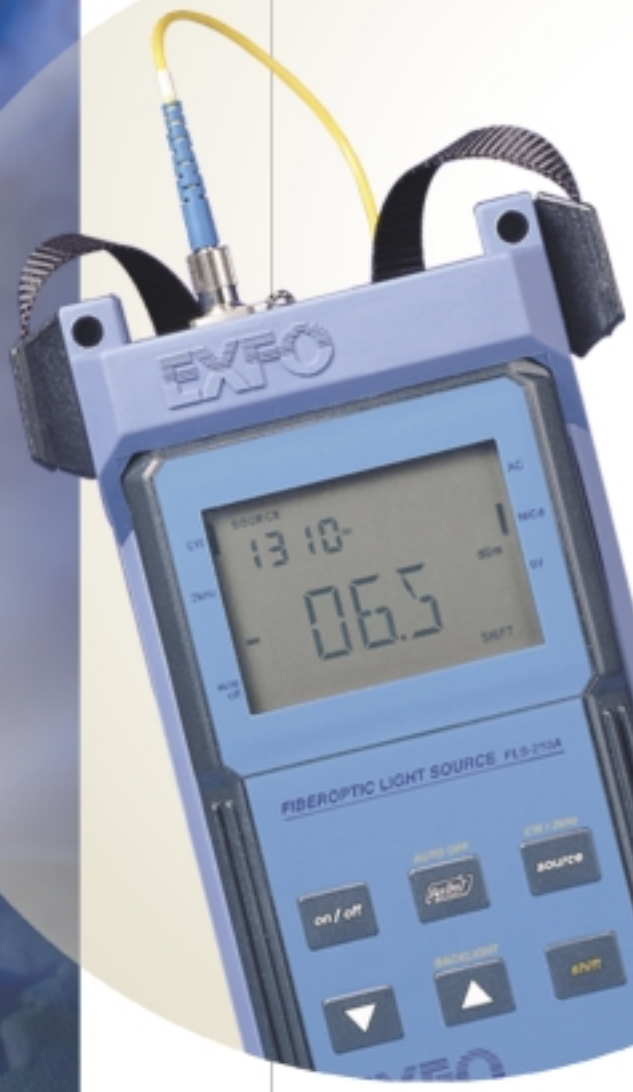
Variable Light Source

FLS-210A

- Variable power output
- LED or laser options, single- or dual-wavelength
- Equipped with EXFO's Universal Interface



Fiber-optic test, measurement and monitoring instruments

EXFO

Manual and Automatic Test Capabilities

The FLS-210A is a high-performance light source that contains LED or laser sources with variable power output levels from 0 dB to 5 dB and from 0 dB to 10 dB, respectively. Combine the FLS-210A with the FOT-90A fiber-optic power meter to measure power and loss in singlemode and multimode fibers. The FLS-210A is the only source in its class capable of performing both manual and automatic tests when combined with a compatible power meter.

FasTesT-Compatible

FasTesT automatically performs a single- or dual-wavelength loss test at the touch of a button. Perform automated attenuation measurements by referencing the FOT-90A Power Meter and FLS-210A Variable Light Source, then simply press the FasTesT button on the FLS-210A. The compatible power meter at the other end will automatically acquire and store readings. The result is efficient data acquisition at a reduced risk of error.

Key Features

- FasTesT-compatible
- Three-way powering
- Automatic mode for streamlined documentation

Dual-Wavelength Selection

The FLS-210A is available in single- (1300 nm, 1550 nm) or dual-wavelength (850/1300 nm, 1310/1550 nm) configurations. Dual-wavelength models toggle between sources and use the same output connector for maximum efficiency and accuracy. For applications requiring stable sources, select the cooled laser option.

Variable Output Advantage

The FLS-210A features variable outputs over a 10 dB range for laser versions and a 5 dB range for LED versions. Either version can be adjusted by increments of 0.1 dB. The laser output is –2 dBm, –3 dBm or –7 dBm, depending on the chosen source.

Outstanding Features

The FLS-210A provides 2 kHz tone modulation, a large, backlit LCD, three-way powering (AC adapter/charger, NiCd, 9 V alkaline battery), low-battery indicator and auto-off function. The unit is housed in a durable polycarbonate case, designed to withstand any field conditions. The FLS-210A offers portable lab-quality performance.

Specifications

Single-wavelength source specifications[1]

Model		–02BL	–03BL
Wavelength (nm)		1310 ± 15	1550 ± 20
Spectral width (rms)[2] (nm)		≤ 5	≤ 5
Emitter type		laser	laser
Typical output power (dBm)			
	9/125 µm	–2	–2
	50/125 µm	–2	–2
Stability (dB)	1 h	± 0.05	± 0.05
	8 h[4]	± 0.12	± 0.12
Temperature stability[5] (dB)		± 0.3	± 0.3

Dual-wavelength source specifications[1]

Model		–12C		–23B		–23BL		–23BLC	
Wavelength (nm)		850 ± 30	1300 ± 30	1310 ± 30	1550 ± 30	1310 ± 15	1550 ± 20	1310 ± 15	1550 ± 20
Spectral width (nm)		≤ 50[3]	≤ 80[3]	≤ 80[3]	≤ 80[3]	≤ 5[2]	≤ 5[2]	≤ 5[2]	≤ 5[2]
Emitter type		LED	LED	LED	LED	laser	laser	laser	laser
Typical output power (dBm)									
	9/125 µm	—	–33	–26	–31	–3.5	–3.5	–3.5	–3.5
	50/125 µm	–22	–18	–26	–31	–3.5	–3.5	–3.5	–3.5
Stability (dB)	1 h	± 0.04	± 0.04	± 0.05	± 0.05	± 0.05	± 0.05	± 0.04	± 0.04
	8 h[4]	± 0.1	± 0.1	± 0.15	± 0.15	± 0.12	± 0.12	± 0.06	± 0.06
Temperature stability[5] (dB)		± 0.3	± 0.3	± 0.3	± 0.3	± 0.3	± 0.3	± 0.2	± 0.2

General specifications

Size	22 cm x 11 cm x 5 cm	(8 3/4 in x 4 1/2 in x 2 in)
Weight unit	0.75 kg	(1 1/2 lb)
shipping	2.5 kg	(5 1/2 lb)
Temperature operating	–10 °C to 40 °C	(14 °F to 104 °F)
storage	–30 °C to 60 °C	(–22 °F to 140 °F)

Standard accessories

Instruction manual, AC adapter/charger, built-in NiCd batteries, 9 V alkaline battery, carrying case, protective holster, shoulder strap, and Certificate of Compliance.

Safety

This product complies with 21 CFR 1040.10 and 1040.11 and with IEC 60825-1:1993+A1:1997.

CLASS 1 LASER PRODUCT

CLASS 1 LED PRODUCT

Notes

1. At 23 °C ± 2 °C (73 °F ± 4 °F) after a 10-minute warmup period.
2. rms = root mean square
3. Full width at half maximum (FWHM).
4. At 23 °C ± 2 °C (73 °F ± 4 °F) after a 20-minute warmup period.
5. For a temperature variation from –10 °C to 40 °C (14 °F to 104 °F).

Ordering Information

FLS-210A-XXXXX-XX

Source code

Single wavelength

02BL = 1310 nm laser

03BL = 1550 nm laser

Dual wavelength

12C = 850/1300 nm LED

23B = 1310/1550 nm LED

23BL = 1310/1550 nm laser

23BLC = (TEC) 1310/1550 nm laser

Connector code

50 = FC/PC

54 = SC/PC

58 = FC/APC narrow key

74 = ST/PC

88 = SC/APC

89 = FC/UPC

90 = ST/UPC

91 = SC/UPC

EI = UPC Universal Interface

EA = APC narrow key Universal Interface

The fixed baseplate (EI or EA) must be ordered with a removable universal connector adapter (EUI-XX). Please specify a EUI from the following list:

EUI-28 = DIN 47256

EUI-76 = HMS-10/AG (EI only)

EUI-89 = FC

EUI-90 = ST (EI only)

EUI-91 = SC

EUI-95 = E-2000

Example: FLS-210A-EI-89 for FC/UPC interface
FLS-210A-EA-89 for FC/APC interface

CORPORATE HEADQUARTERS	465 Godin Avenue	Vanier (Quebec) G1M 3G7 CANADA	Tel.: 1 418 683-0211 . Fax: 1 418 683-2170
EXFO AMERICA	1201 Richardson Drive, Suite 260	Richardson TX 75080 USA	Tel.: 1 800 663-3936 . Fax: 1 972 907-2297
EXFO EUROPE	Le Dynasteur, 10/12 rue Andras Beck	92366 Meudon la Forêt Cedex FRANCE	Tel.: +33.1.40.83.85.85 . Fax: +33.1.40.83.04.42
EXFO ASIA-PACIFIC	151 Chin Swee Road, #03-29 Manhattan House	SINGAPORE 169876	Tel.: +65 333 8241 . Fax: +65 333 8242
TOLL-FREE (USA and Canada)	Tel.: 1 800 663-3936	www.exfo.com • info@exfo.com	

SPFLS210A.6AN 01/11

Printed in Canada